WHAT IS CLAIMED IS:

1. A torsion oscillator scanner comprising:

a light source for producing a light beam;

a plate member having a non-rectangular shape selected from the group of elliptical, oval, racetrack, or circular, the plate member having an upper surface, a lower surface, and a rotational axis,

a frame disposed in a spaced apart relation to the lower surface of the plate member,

a mount for holding the plate number adjacent the frame,

a reflective surface located on a surface of the plate member for reflecting a light beam,

at least one magnet disposed on the plate,

at least one coil located on the frame and configured for inducing electromagnetic force on the at least one magnet when alternating current is applied to the at least one coil to thereby oscillate the reflective surface to a rotational angle of oscillation at an oscillation frequency to scan the light beam through a scanning pattern in at least first and second directions at the oscillation frequency

a receiving surface disposed in the path of the light beam in the scanning pattern for interacting with the light beam to produce information, and

control logic for controlling the oscillation of the reflective surface to oscillate the reflective surface at or near a resonant frequency of the plate member.

2. The torsion oscillator scanner of claim 1 wherein the mount further comprises a torsion spring mount for mounting the plate member on the frame and for yieldably resisting oscillation of the plate member with a torsion spring force.

3. The torsion oscillator scanner of claim 1 wherein the mount further comprises a torsion spring mount having opposed substantially co-axial silicon torsion springs for mounting the plate member on the frame and for yieldably resisting oscillation of the plate member with a torsion spring force.

4. The torsion oscillator scanner of claim 1 wherein the reflective surface has a shape selected from the group of elliptical, oval, racetrack, or circular.

5. The torsion oscillator scanner of claim 1 further comprising a laser producing the light beam in the form of a laser beam, the laser beam being dimensioned and disposed to overfill the reflective surface and produce a reflected laser beam having a cross sectional dimension defined by the size of the reflective surface.

6. A torsion oscillator scanner comprising:

a plate member having a non-rectangular shape selected from the group of elliptical, oval, racetrack, or circular, the plate member having an upper surface, a lower surface, and a rotational axis,

a frame disposed in a spaced apart relation to the lower surface of the plate member,

a mount for holding the plate number adjacent the frame,

a reflective surface located on a surface of the plate member for reflecting a light beam,

at least one magnet disposed on the plate,

at least one coil located on the frame and configured for inducing electromagnetic force on the at least one magnet when alternating current is applied to the at least one coil to thereby oscillate the reflective surface to a rotational angle of oscillation at an oscillation frequency to scan the light beam through a scanning pattern in at least first and second directions at the oscillation frequency, and

wherein the plate member has an aerodynamic streamlined configuration to minimize wind resistance and interference effects.

7. A torsion oscillator scanner comprising:

a plate member having a non-rectangular shape selected from the group of elliptical, oval, racetrack, or circular, the plate member having an upper surface, a lower surface, and a rotational axis,

a frame disposed in a spaced apart relation to the lower surface of the plate member,

a mount for holding the plate number adjacent the frame,

a reflective surface located on a surface of the plate member for reflecting a light beam,

at least one magnet disposed on the plate,

at least one coil located on the frame and configured for inducing electromagnetic force on the at least one magnet when alternating current is applied to the at least one coil to thereby oscillate the reflective surface to a rotational angle of oscillation at an oscillation frequency to scan the light beam through a scanning pattern in at least first and second directions at the oscillation frequency, and

wherein the reflective surface comprises a mirror having an optical power.

8. The torsion oscillator scanner of claim 7 wherein the reflective surface comprises a concave mirror.

9. The torsion oscillator scanner of claim 7 wherein the reflective surface comprises a Fresnel lens mirror.

10. The torsion oscillator scanner of claim 7 wherein the plate member further includes one or more diffractive optical surfaces having reflective properties.

11. A torsion oscillator scanner comprising:

a plate member having a non-rectangular shape selected from the group of elliptical, oval, racetrack, or circular, the plate member having an upper surface, a lower surface, and a rotational axis,

a frame disposed in a spaced apart relation to the lower surface of the plate member,

a mount for holding the plate number adjacent the frame,

a reflective surface located on a surface of the plate member for reflecting a light beam,

at least one magnet disposed on the plate,

at least one coil located on the frame and configured for inducing electromagnetic force on the at least one magnet when alternating current is applied to the at least one coil to thereby oscillate the reflective surface to a rotational angle of oscillation at an oscillation frequency to scan the light beam through a scanning pattern in at least first and second directions at the oscillation frequency, and

wherein the reflective surface comprises multiple mirrors, each mirror having different reflective properties.

12. A scanning apparatus comprising:

a light source for producing a light beam,

an oscillator comprising:

a plate member having an upper surface, a lower surface, and a rotational axis located in the path of the light beam,

a frame disposed in a spaced apart relation to the lower surface of the plate member,

a mount for holding the plate number adjacent the frame and providing for oscillating motion of the plate;

a reflective surface located on a surface of the plate member for reflecting the light beam,

at least one magnet and at least one coil disposed and configured for producing an electromagnetic force that interacts with the at least one magnet when alternating current is applied to the at least one coil to thereby oscillate the reflective surface to a rotational angle of oscillation at an oscillation frequency to scan the light beam through a scanning pattern in at least first and second directions at the oscillation frequency,

a light sensitive surface disposed in the path of the scanning pattern so that the light beam scans across the surface,

a mechanical drive for moving the light sensitive surface at a surface speed, and

a control system for controlling the electric current provided to the at least one coil to achieve the oscillation.

13. The scanning apparatus of claim 12 wherein the plate member includes a non-rectangular configuration having reduced inertia and wind resistance when oscillated as compared to a rectangular configuration.

14. The scanning apparatus of claim 12 wherein the plate member includes an elliptical configuration having a major and a minor axis.

15. The scanning apparatus of claim 12 further comprising a laser producing the light beam in the form of a laser beam, the laser beam being dimensioned and disposed to overfill the reflective surface and produce a reflected laser beam having a cross sectional dimension defined by the size of the reflective surface.

16. The scanning apparatus of claim 12 wherein the current applied to the at least one coil is sufficient to oscillate the reflective surface to an angle of at least plus or minus fifteen degrees about the rotational axis.

17. The scanning apparatus of claim 12 wherein the upper surface of the plate further comprises one or more diffractive optical surfaces.

18. A laser printer comprising:

a laser source for producing a laser beam,

a torsion oscillator comprising:

a plate member having an upper surface, a lower surface, and a rotational axis and being located in the path of the laser beam,

a frame disposed in a spaced apart relation to the plate member,

a torsion spring mount for mounting the plate member on the frame and for yieldably resisting oscillation of the plate member with a torsion spring force,

a reflective surface disposed on a surface of the plate member for reflecting the laser beam,

at least one magnet disposed on the plate, and

at least one coil located on the frame for producing an oscillation force on the at least one magnet when an alternating electric current is applied to the at least one coil to thereby oscillate the reflective surface about the rotational axis to a rotational angle of oscillation at an oscillation frequency to scan the laser beam through a scanning pattern in at least first and second directions at the oscillation frequency,

an imaging surface disposed in the path of the scanning pattern so that the laser beam scans across the imaging surface,

a drive mechanism for moving the imaging surface at an imaging surface speed, and

a control circuit for controlling the electric current provided to the at least one coil to control the oscillator.

19. The laser printer of claim 18 wherein the plate member comprises a non-rectangular configuration.

20. The laser printer of claim 18 wherein the reflective surface comprises a non-rectangular configuration.

21. The laser printer of claim 18 wherein the amount of current applied to the at least one coil is sufficient to oscillate the reflective surface to a predetermined rotational angle with respect to the rotational axis.

22. The laser printer of claim 18 wherein the oscillation frequency is about 2.6 kHz.

23. The laser printer of claim 18 wherein the rotational angle of oscillation is about plus and minus fifteen degrees.

24. The laser printer of claim 18 wherein the rotational angle of oscillation is greater than plus and minus fifteen degrees.

25. The laser printer of claim 18 wherein the magnets are mounted on one surface of the plate member and the reflective surface is formed on the other surface of the plate member.

26. The laser printer of claim 18 wherein the magnets are mounted on the longitudinal axis of the torsion spring mount.